

RAW SEQUENCE LISTING

The Biotechnology Systems Branch of the Scientific and Technical
Information Center (STIC) no errors detected.

Application Serial Number: 09/938,114B
Source: IFW/6
Date Processed by STIC: 4/20/07

ENTERED



IFW16

RAW SEQUENCE LISTING

DATE: 04/20/2007

PATENT APPLICATION: US/09/938,114B

TIME: 11:20:49

Input Set : A:\US01 corrected sequence listing 04_12_07.txt

Output Set: N:\CRF4\04202007\I938114B.raw

```

3 <110> APPLICANT: Wang, Chun
4      Xy Li, Benjamin
5      Cheng, Xin
6      Liu, Jing
7      Niu, Li-Wen
8      Huang, Wan-Zhi
9      Xu, Zhen-Yu
10     Luo, Dan
11     Kang, Lian-Di
12     Ding, Jin-Guo
13     Rong, Fang
14     Liu, Yan
15     Chen, Hui-Ran
17 <120> TITLE OF INVENTION: Antithrombosis enzyme from the snake venom of Agkistrodon
acutus
19 <130> FILE REFERENCE: 54567.8001.US01
21 <140> CURRENT APPLICATION NUMBER: 09/938,114B
22 <141> CURRENT FILING DATE: 2001-08-23
24 <150> PRIOR APPLICATION NUMBER: US 60/043,886
25 <151> PRIOR FILING DATE: 1997-04-10
27 <150> PRIOR APPLICATION NUMBER: US 09/058,740
28 <151> PRIOR FILING DATE: 1998-04-10
30 <160> NUMBER OF SEQ ID NOS: 12
32 <170> SOFTWARE: PatentIn version 3.3
34 <210> SEQ ID NO: 1
35 <211> LENGTH: 544
36 <212> TYPE: DNA
37 <213> ORGANISM: Agkistrodon acutus
39 <400> SEQUENCE: 1
40 gaagggcatt gctacaaggt cttcaaacaa tctaagacct ggacagatgc agagagcttc      60
42 tgcacgaagc aggtgaacgg ggggcatctg gtctctatcg aaagctccgg agaagcagac      120
44 tttgtgggcc agttgattgc tcagaagata aagtcagcca aaatccatgt ctggatcgga      180
46 ctgagggctc aaaacaaaga aaagcaatgc agcatagagt ggagcgatgg ctccagcatc      240
48 agttatgaga attggattga agaagaatcc aaaaagtgtc ttgggggtgca catagagaca      300
50 gggtttcata agtggggagaa tttttactgt gaacaacaag atccttttgt ctgcgaggca      360
52 tagtctgaag atccagctga ttgaagtctg gagaagcaag gaagccccc accccatccc      420
54 ccaaccctgc ctagccacaa tctctgctat gcacccttg ctcaacggat gctctctgta      480
56 gctggatctg gtgttgctgc tcctgatggg ccggaagtca ataaattctg cctagcctga      540
58 aaaa
61 <210> SEQ ID NO: 2
62 <211> LENGTH: 129
63 <212> TYPE: PRT
64 <213> ORGANISM: Agkistrodon acutus
66 <400> SEQUENCE: 2

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68 Asp Cys Ser Ser Asp Trp Ser Ser Tyr Glu Gly His Cys Tyr Lys Val
69 1 5 10 15
72 Phe Lys Gln Ser Lys Thr Trp Thr Asp Ala Glu Ser Phe Cys Thr Lys
73 20 25 30
76 Gln Val Asn Gly Gly His Leu Val Ser Ile Glu Ser Ser Gly Glu Ala
77 35 40 45
80 Asp Phe Val Gly Gln Leu Ile Ala Gln Lys Ile Lys Ser Ala Lys Ile
81 50 55 60
84 His Val Trp Ile Gly Leu Arg Ala Gln Asn Lys Glu Lys Gln Cys Ser
85 65 70 75 80
88 Ile Glu Trp Ser Asp Gly Ser Ser Ile Ser Lys Glu Asn Trp Ile Glu
89 85 90 95
92 Glu Glu Ser Lys Lys Cys Leu Gly Val His Ile Glu Thr Gly Phe His
93 100 105 110
96 Lys Trp Glu Asn Phe Tyr Cys Glu Gln Gln Asp Pro Phe Val Cys Glu
97 115 120 125
100 Ala
104 <210> SEQ ID NO: 3
105 <211> LENGTH: 29
106 <212> TYPE: PRT
107 <213> ORGANISM: Agkistrodon acutus
109 <400> SEQUENCE: 3
111 Asp Cys Ser Ser Asp Trp Ser Ser Tyr Glu Gly His Cys Tyr Lys Val
112 1 5 10 15
115 Phe Lys Gln Ser Lys Thr Trp Thr Asp Ala Glu Ser Phe
116 20 25
119 <210> SEQ ID NO: 4
120 <211> LENGTH: 17
121 <212> TYPE: PRT
122 <213> ORGANISM: Agkistrodon acutus
124 <400> SEQUENCE: 4
126 Asp Cys Pro Ser Glu Trp Ser Ser Tyr Glu Gly Phe Cys Tyr Lys Pro
127 1 5 10 15
130 Phe
134 <210> SEQ ID NO: 5
135 <211> LENGTH: 23
136 <212> TYPE: PRT
137 <213> ORGANISM: Agkistrodon acutus
139 <400> SEQUENCE: 5
141 Met Gly Arg Phe Ile Phe Val Ser Phe Gly Leu Leu Val Val Phe Leu
142 1 5 10 15
145 Ser Leu Ser Gly Thr Ala Ala
146 20
149 <210> SEQ ID NO: 6
150 <211> LENGTH: 6
151 <212> TYPE: PRT
152 <213> ORGANISM: Agkistrodon acutus
154 <400> SEQUENCE: 6
156 Tyr Glu Gly His Cys Tyr

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RAW SEQUENCE LISTING

DATE: 04/20/2007

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TIME: 11:20:50

Input Set : A:\US01 corrected sequence listing 04_12_07.txt

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```

157 1          5
160 <210> SEQ ID NO: 7
161 <211> LENGTH: 20
162 <212> TYPE: DNA
163 <213> ORGANISM: Artificial
165 <220> FEATURE:
166 <223> OTHER INFORMATION: Synthetic PCR primer
168 <400> SEQUENCE: 7
169 tatgaagggc attgctacaa                20
172 <210> SEQ ID NO: 8
173 <211> LENGTH: 20
174 <212> TYPE: DNA
175 <213> ORGANISM: Artificial
177 <220> FEATURE:
178 <223> OTHER INFORMATION: Synthetic PCR primer
180 <400> SEQUENCE: 8
181 ccatggggcg attcatcttc                20
184 <210> SEQ ID NO: 9
185 <211> LENGTH: 19
186 <212> TYPE: DNA
187 <213> ORGANISM: Artificial
189 <220> FEATURE:
190 <223> OTHER INFORMATION: Synthetic PCR primer
192 <400> SEQUENCE: 9
193 cagctgcatc ttcagacta                19
196 <210> SEQ ID NO: 10
197 <211> LENGTH: 24
198 <212> TYPE: DNA
199 <213> ORGANISM: Artificial
201 <220> FEATURE:
202 <223> OTHER INFORMATION: Synthetic PCR primer
204 <400> SEQUENCE: 10
205 ggtggcgacg actcctggag cccg                24
208 <210> SEQ ID NO: 11
209 <211> LENGTH: 24
210 <212> TYPE: DNA
211 <213> ORGANISM: Artificial
213 <220> FEATURE:
214 <223> OTHER INFORMATION: Synthetic PCR primer
216 <400> SEQUENCE: 11
217 ttgacaccag accaactggt aatg                24
220 <210> SEQ ID NO: 12
221 <211> LENGTH: 454
222 <212> TYPE: DNA
223 <213> ORGANISM: Agkistrodon acutus
226 <220> FEATURE:
227 <221> NAME/KEY: CDS
228 <222> LOCATION: (3)..(440)
230 <220> FEATURE:

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```

231 <221> NAME/KEY: misc_feature
232 <222> LOCATION: (217)..(226)
233 <223> OTHER INFORMATION: "n" is any nucleotide
235 <400> SEQUENCE: 12
236 cc atg ggg cga ttc atc ttc gtg agc ttc ggc ttg ctg gtc gtg ttc      47
237   Met Gly Arg Phe Ile Phe Val Ser Phe Gly Leu Leu Val Val Phe
238     1           5           10          15
240 ctc tcc ctg agt gga act gca gct gat tgt ccc tct gag tgg tcc tcc      95
241 Leu Ser Leu Ser Gly Thr Ala Ala Asp Cys Pro Ser Glu Trp Ser Ser
242           20           25           30
244 tat gaa ggg cat tgc tac aag ccc ttc gat gaa cct aag acc tgg gca      143
245 Tyr Glu Gly His Cys Tyr Lys Pro Phe Asp Glu Pro Lys Thr Trp Ala
246           35           40           45
248 gat gca gag aaa ttc tgc aca caa cac aaa ggc agc cat ctg cct      191
249 Asp Ala Glu Lys Phe Cys Thr Gln Gln His Lys Gly Ser His Leu Pro
250           50           55           60
W--> 252 ctc aca gca gtg aga gcg att gtg tnn nnn nnn nnt ggt cac gtt gac      239
W--> 253 Leu Thr Ala Val Arg Ala Ile Val Xaa Xaa Xaa Xaa Gly His Val Asp
254           65           70           75
256 cac acc aag ttg aaa ctg att agt ctg att gga ctg aag aac atc tgg      287
257 His Thr Lys Leu Lys Leu Ile Ser Leu Ile Gly Leu Lys Asn Ile Trp
258 80           85           90           95
260 aac gga tgc tac tgg aag tgg agc gat ggc acc aag ctc gac tac aaa      335
261 Asn Gly Cys Tyr Trp Lys Trp Ser Asp Gly Thr Lys Leu Asp Tyr Lys
262           100          105          110
264 gac tgg cgt gaa caa ttt gaa tgt ctc gta tcc agg aca gtt aat aac      383
265 Asp Trp Arg Glu Gln Phe Glu Cys Leu Val Ser Arg Thr Val Asn Asn
266           115          120          125
268 gaa tgg cta agt atg gac tgc ggc act act tgc tct ttc gtc tgc aag      431
269 Glu Trp Leu Ser Met Asp Cys Gly Thr Thr Cys Ser Phe Val Cys Lys
270           130          135          140
272 ttc cag gca tagtctgaag acta      454
273 Phe Gln Ala
274           145

```

RAW SEQUENCE LISTING ERROR SUMMARY
PATENT APPLICATION: US/09/938,114B

DATE: 04/20/2007
TIME: 11:20:51

Input Set : A:\US01 corrected sequence listing 04_12_07.txt
Output Set: N:\CRF4\04202007\I938114B.raw

Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:12; N Pos. 217,218,219,220,221,222,223,224,225,226
Seq#:12; Xaa Pos. 72,73,74,75

Invalid <213> Response:

Use of "Artificial" only as "<213> Organism" response is incomplete, per 1.823(b) of New Sequence Rules. Valid response is Artificial Sequence.

Seq#:7,8,9,10,11

VERIFICATION SUMMARY

DATE: 04/20/2007

PATENT APPLICATION: US/09/938,114B

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Input Set : A:\US01 corrected sequence listing 04_12_07.txt

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L:252 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:12 after pos.:191

L:253 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:12 after pos.:239